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BCL

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/919,670 08/28/97 AKIZUKI

H SANYO-74

EXAMINER

LM01/0424

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HARRINGTON, A

ART UNIT

PAPER NUMBER

2712

DATE MAILED:

04/24/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08919670

Applicant(s)

AKIWAH

Examiner

HARRINGTON

Group Art Unit

2712

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 1-26-00
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-12 is/are pending in the application.
- ☐ Of the above claim(s) is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 1-12 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 4
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 5,963,255) in view of Kare et al (US 5,541,656).

Regarding claim 1, Anderson disclose an digital camera comprising a signal processor (16) for processing an image signal output from imaging element(col. 3, lines 53-60 and col. 4, lines 1-10 and see figure 1); a LCD display for displaying image data (see figure 4, #18); an electronic flash device (#66, see figure 2) comprising a capacitor (col. 5, lines 10-28) and a discharge tube must receive the output ;battery for supplying current to all the circuitry of the camera (#17 and #74; see figure 1 and 3; col. 5, lines 29-42); a battery voltage detection circuit (#76; col. 5, lines 59-65; and the system controller (col. 2, lines 55-60; see figure 3 and 4; col. 5, lines 54-57).

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Although, the controller is a cooperation of two main components of the system (the computer and the power circuit), forming a single integrated unit would have been obvious to anyone of routine skill in the art.

However, Anderson's system controls the camera such that when the voltage of the battery falls below the predetermined value (5.2 v), the camera shuts down power to some of the components in the system. For example: The flash charging is completely shut down in power state 3, and the camera system may still take images and thus could still display images. In another mode, the charging the flash is lessened (not the maximum charge amount) and camera image processing and other functions are allowed to be implemented, such as display. Thus, Anderson's camera system is clearly teaching to powering down individual circuits which have a great deal of influence on battery drain, such flash, processing and display to increase the longevity of the battery/power supply. Additionally, it is clear that Anderson also teaches efficient use of the energy available in the camera when power level output from the batter is not at a maximum or well above the threshold/predetermined value (minimum safe operating voltage; see col. 6, lines 1-25; col. 7, lines 23-45; col. 8, lines 1-51 and col. 10, lines 29-55). Anderson also clearly teaches in a power failure state (power state 1) that shutting down image recording and displays to complete the processing of image data. Since it is notoriously well known that a display, such as LCD, increases the current load of the power supply /battery, and the Examiner takes official notice to this fact, it would have been obvious to suspend power to an image display during the time another circuit known for substantially increasing the power supply to the

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power source/battery when the level of the power source/battery is low (below a predetermined level), such as charging the flash (see col. 2, lines 14-17 of Anderson) to prevent the bounce the effect (col. 2, lines 10-15 of Anderson), increase the longevity of the power source. It is also well known in the art to keep the camera from taking picture, until flash charging is completed. For example, Kare discloses a digital camera which doesn't began taking an image until the charging is complete (col. 5, lines 45- 47) when in flash photography mode. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to complete charging before displaying an image or vise versa when the amount of electric charge is below a predetermined value, since the heavy current load drains the power source/battery level and Anderson teaches the motors in the camera can also be sequentially driven (one at a time) during a power state 3, as taught by Anderson, and Kare teaches not allowing an image to be taken/recorded until charging of the flash completed in the digital camera, which also does one power load at a time (sequentially), which maximizes the useable power of the camera system .

As for claim 2, See Examiners notes in claim 1. Additionally, Anderson discloses the minimum safe operating level is 5.2 and a shut down sequence doesn't occur until the power level falls below the minimum. Thus, charging the capacitor and display could be performed when the power in the battery is at least the predetermined value (col. 5, lines 43-48; col. 7, lines 23-32 and 40-46; col. 8, lines 14-17).

As for claim 3, Anderson fails to specifically disclose the predetermined value is half the value of the a full amount of electric charge stored in the battery. However, the Examiner asserts

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that Anderson discloses the claimed invention with the exception of this limitation and it appears the invention would work equally as well without specifying the threshold value is half of the battery maximum voltage level.

As for claim 4, see Examiners notes in claim 3 and 1 and see col. 5, lines 45-48 and col. 6, lines 1-5.

As for claim 5, see Examiners notes in claim and col. 7, lines 1-5.

As for claim 6, Anderson's signal processor (16) contains a memory and digital signal processor . However, it is notoriously well known in the art that a camera system could incorporate two processors (digital and analog) to processor image signals as they are output from the imager initially and then digitally processor them late for digital transmission or use in external digital equipment connected to the camera. Therefore, it would have been obvious to one of ordinary skill in the art to include incorporate two processors in a camera system to expand the external use of the image signal(digital broadcast, conferencing; recreational image manipulation (photo software) by computers etc).

As for claim 7, Anderson's system controls the camera such that when the detected voltage of the battery falls below the predetermined value (5.2 v), the camera shuts down power to some of the components in the system. For example: *In another mode when powering shutdown sequence has begun, the charging the flash is lessened (not the maximum charge amount) and camera image processing and other functions are allowed to be implemented, such as display.* Thus, Anderson's camera system is clearly teaching to powering down individual

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circuits which have a great deal of influence on battery drain, such flash, processing and display to increase the longevity of the battery/power supply. Additionally, it is clear that Anderson also teaches efficient use of the energy available in the camera when power level output from the battery is not at a maximum or well above the threshold/predetermined value (minimum safe operating voltage; see col. 6, lines 1-25; col. 7, lines 23-45; col. 8, lines 1-51 and col. 10, lines 29-55). Additionally, see Examiners notes in claim 1.

As for claim 8, See Examiners notes in claim 1. Additionally, Anderson discloses the minimum safe operating level is 5.2 and a shut down sequence doesn't occur until the power level falls below the minimum. Thus, charging the capacitor and display could be performed when the power in the battery is at least the predetermined value (col. 5, lines 43-48; col. 7,23-32 and 40-46; col. 8, lines 14-17).

As for claim 9, see Examiners notes in claim 7 and 3.

As for claim 10, see Examiners notes in claim 9 and 7.

4. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Kare , and further in view of Tanaka et al (US 5,155,581).

As for claim 11, see Examiners notes in claim 1. In addition, controller receives a signal indicating the voltage is below a predetermined value . As discussed above, Kare supports completing the charging of the capacitor before imaging can occur Thus, Anderson and Kare disclose preventing charging of the capacitor and displaying an image simultaneously when the charge level is below a predetermined value. They also teach charging the flash completely before

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starting the imaging cycle, as discussed above. Tanaka further teaches, a video camera where the image data is stored on disc and the spindle motor for the recording disc is stopped, when the flash is charging, as a power saving method (col. 20, lines 9-25). Thus, it would have been further obvious to one of ordinary skill in the art, to control the monitor/display to be inoperative while a capacitor is charging after recording image data on a recording, since Anderson and Tanaka teach shutting recording medium off to conserve energy and Kare further illustrates charging and any imaging related function should occur sequentially(one at time/ one after the other). Therefore, the system would prevent the power source from heavily loaded periods of use which cause the camera system to increase the longevity of the battery/power source usage.

As for claim 12, see Examiner notes in claim 11 and 2.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Inoue, Tatsou et al (JP 363237043A) discloses a video camera with still camera.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Harrington whose telephone number is (703) 308-9295. The examiner can normally be reached on Tuesday to Friday from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Wendy Garber, can be reached on (703) 305-4929.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-6306, (for formal communications intended for entry)

Or:


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(703) 308-6296 (for informal or draft communication, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist)

AMH: 

April 14, 2000


Wendy Garber
Supervisory Patent Examiner
Technology Center 2700